

# Comfort Foods and Mood



Tracy Sbrocco, Ph.D.  
Assoc. Prof.

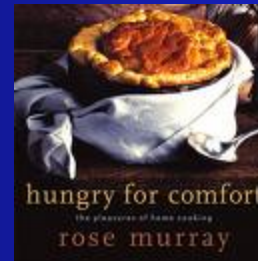


Dept Medical & Clinical Psychology  
Uniformed Services University

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>15 JUL 2008</b>		2. REPORT TYPE <b>N/A</b>		3. DATES COVERED <b>-</b>	
4. TITLE AND SUBTITLE <b>Comfort Foods and Mood</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Dept Medical &amp; Clinical Psychology Uniformed Services University Bethesda, MD</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release, distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>Warfighter Nutrition Workshop 15-16 July 2008 (USUHS), The original document contains color images.</b>					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>UU</b>	18. NUMBER OF PAGES <b>17</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

# Overview

- Stress & eating
- Does food improve mood?
- Emotional eating
- Comfort Foods
- Consequences
- Solutions



# Reporting from Iraq: Comfort food for troops can pack on the pounds

By Scott Hadly (Ventura County Star)

Tuesday, July 8, 2008

CAMP RAMADI, Iraq There are many threats for the troops deployed here, but few as insidious as the bacon cheeseburger, French fries and soda. Reflecting what's happening across the United States, the military is fighting fat.

Beebe said his favorite meal is the weekly surf and turf - steak and crab legs. There's also an ice cream bar and a fast-food burger option at every meal. Five years into the war in Iraq, Forward Operating Bases such as this one - and others much larger - have developed into mini-American towns. On some bases, troops fresh off of a patrol can stroll in for a sandwich at a makeshift Subway, grab a pie at Pizza Hut or get a Whopper from Burger King.

QuickTime™ and a  
decompressor  
are needed to see this picture.

Even in the chow hall, where the meals are prepared by contractors, there are plenty of fast-food options - the kind many young troops typically reach for first. Such amenities are meant to provide some comfort for troops wrestling with dangerous situations and long deployments, but they've also made it difficult for some to keep off the pounds.

# *King's Delight Ad*

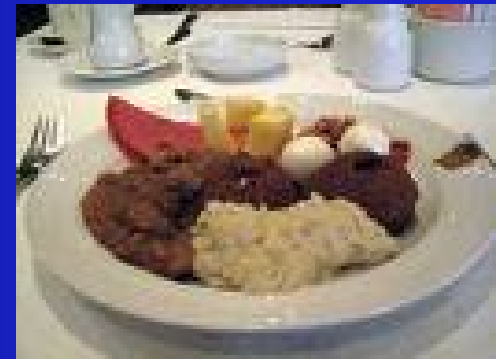
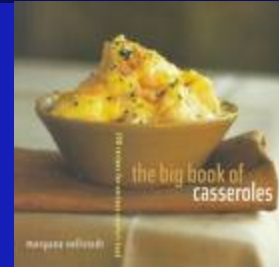
Our men and women serving in the United States Armed Forces deserve nothing but the finest. Kings Delight has a tradition of providing the great tasting chicken and deli meats served in troop feeding as well as in military commissaries.

We are proud that our portfolio of products and brands might bring a little comfort food to our soldiers, sailors, marines, airmen, and coast guardsmen



# What are comfort foods?

- comfort food - food that evokes psychologically comfortable or pleasant state (Wansink, Cheney, & Char, 2003)
- **Preferences that develop over a Lifetime**
- **Can get us in trouble w regularly**



QuickTime™ and a  
decompressor  
are needed to see this picture.

# Stress & Eating

- Comfort foods may be turned to in times of stress
- Stress - An aversive state, marked by increased sympathetic nervous system arousal, in response to a threatening/demanding situation.
  - Perceived stress predicts health outcomes
- Eating after stress can improve mood (Dube, LeBell, & Lu, 2005; Osborn, Sbrocco, Carter, & Hood, 2008).
- However, eating does not always improve mood (Macht et al, 2003)
- Eating can actually worsen mood (Macht, Gerer, & Eligring, 2003; Polivy & Herman, 1999)

# Does food improve mood?



The Impact of Eating  
Depends on . . .



# The Impact of Eating on Mood Depends on . . .

- The **antecedents** to eating
  - Stress or other negative emotions
  - Positive emotions (e.g., social situations)
  - Hunger
- **Who** is eating?
  - Specific groups may have a learned association between mood and eating:
    - Overweight/Obese or Weight status
    - Emotional Eaters
    - Dieting Status/Restrained Eaters
    - Gender may differ
    - Binge Eaters

QuickTime™ and a  
decompressor  
are needed to see this picture.

# The Impact of Eating on Mood Depends on . . .

- Type of food consumed - *Comfort Foods*
  - Nutrients in foods
    - Tot fat, sat fat, % fat increase (McCann et al., 1990; Crowther et al., 2001),
  - Psychological aspects of foods - “forbidden foods”, healthy vs. unhealthy
  - Food availability
  - Personal preferences
    - Sweet & salty high fat foods among binge eaters (Marcus, Wing, & Hopkins, 1988); Michaud et al, 1990).
    - Foods typically avoided may be consumed
- Amount of food consumed - total kcal increase (McCann et al., 1990; Crowther et al., 2001; Zellner et al, 2006)

# Eating Improves Mood in Response to Stress

- By moving a person along a continuum towards a positive mood state -- literally mood improvement.
- Or, eating can buffer the stress response so that an individual person does not ever reach the lowest mood point (vs. negative level reached without the buffer)



# Who? Emotional Eaters

- Emotional Eating - a tendency to eat in response to stress or negative mood.
  - Inapt response to stress (van Strien & Ouwens, 2006)
  - Higher among dieters
  - Decreases during positive mood states
- Overweight (vs. normal wt/underwt) increase amt eaten under stress conditions(Lowe & Fisher, 1983; Pinaquay et al, 2003, Griebeter & Aversa, 2003)
- Underweight often eat less under stress

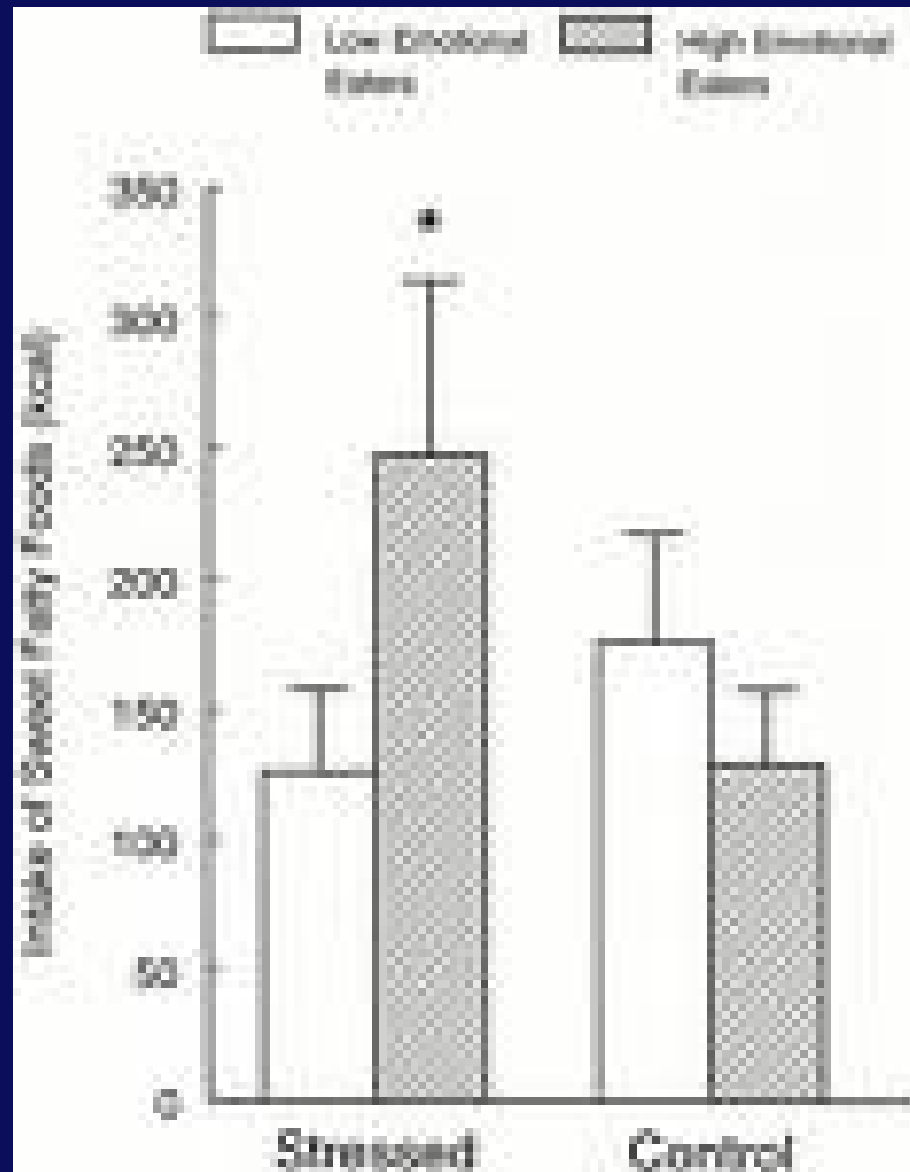


Fig. 1. Effect of emotional eating status and stress manipulation on intake (kcal) of sweet fatty foods. Data are mean + SE. \* $t(32) = 1.85, p < .05$ , one-tailed test, for greater intake by high emotional eaters in the stressed group vs. the control group

# Who? Dieters

- Dieting Status - Restrained eaters chronically limit food intake for weight control.
- More susceptible to increasing food intake under stress conditions (e.g., Cools, Schotte, & McNally, 1992; Zelinier et al., 2006).

# Consequences of Comfort Food Consumption Can Include:

- Short term - *powerful*
  - Improved mood
  - Improved morale
- Long term
  - Weight gain
    - 79% obese vs. 9% normal weight report stress-related weight gains of 10lb or more (Rand, 1982)
    - 67% report 25lb more
  - Health consequences
  - Negative mood (dieters)



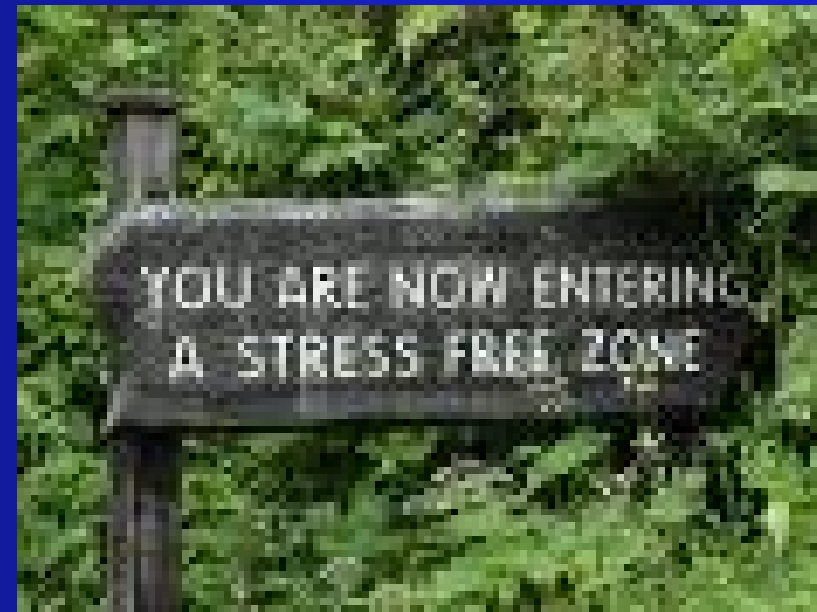
# Solutions . . .





# Solutions

- Identify who is negatively impacted (e.g., overweight, emotional eaters) & target them.
- Environmental Changes & Food Availability
- Alter stressful/neg emotional antecedents (e.g., boredom)
- What are the eating patterns?
  - Snacking & grazing
  - Regular meals
  - Night/evening eating
  - Mindless eating
- Modify the comfort foods
  - Healthier versions
  - Alter frequency/portion size



# Solutions

- Promote alternative behaviors to manage stress
  - Recreation, social, entertainment
  - Much match the ease & frequency of food

